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मानक

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“जानने का अधिकार, जीने का अधिकार”

Mazdoor Kisan Shakti Sangathan

“The Right to Information, The Right to Live”

“पुराने को छोड़ नये के तरफ”

Jawaharlal Nehru

“Step Out From the Old to the New”

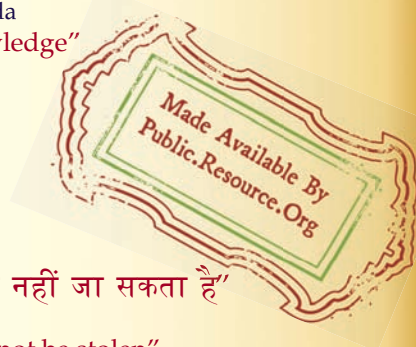
IS 14303 (1995): Magnesite for Refractory Industry [MTD 13: Ores and Raw Materials]



“ज्ञान से एक नये भारत का निर्माण”

Satyanarayan Gangaram Pitroda

“Invent a New India Using Knowledge”



“ज्ञान एक ऐसा खजाना है जो कभी चुराया नहीं जा सकता है”

Bhartrhari—Nitiśatakam

“Knowledge is such a treasure which cannot be stolen”

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भारतीय मानक

उच्चतापसह उद्योग के लिये मेग्नेसाइट — विशिष्टि

Indian Standard

**MAGNESITE FOR REFRACTORY
INDUSTRY — SPECIFICATION**

UDC 666.762.32

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BUREAU OF INDIAN STANDARDS
MANAK BHAVAN, 9 BAHADUR SHAH ZAFAR MARG
NEW DELHI 110002

FOREWORD

This Indian Standard was adopted by the Bureau of Indian Standards, after the draft finalized by the Ores and Raw Materials Sectional Committee had been approved by the Metallurgical Engineering Division Council.

Raw natural magnesite occurs in India in the region of Almora/Pithoragarh in U.P. and Salem in Tamil Nadu. The magnesites of U.P. and Tamil Nadu differ in origin as well as physical and chemical characteristic. In view of this fact it is not possible to specify them in one grade, so three grades (Grades 1, 2 and 3) have been specified for magnesite found in South India and two grades (Gr 4, and Gr 5) for U.P. Magnesites.

The consumption of magnesite for the manufacture of refractory is increasing with the rising production of steel using basic oxygen route of steel making and intensification of operations in the cement industry as well as non-ferrous metal industry. Constant efforts are on to provide quality magnesite. Considering the growing needs for more sophisticated basic refractories and to upgrade the quality of magnesite, a number of beneficiation plants are being established in the country.

No marking clause has been specified in this standard as the magnesite is supplied loose.

For the purpose of deciding whether a particular requirement of this standard is complied with, the final value, observed or calculated, expressing the results of a test or analysis shall be rounded off in accordance with IS 2 : 1960 'Rules for rounding off numerical values (*revised*)'. The number of significant places retained in the rounded off value should be the same as that of the specified values in this standard.

Indian Standard

MAGNESITE FOR REFRACTORY INDUSTRY — SPECIFICATION

1 SCOPE

This standard covers the requirements of raw magnesite used in the manufacture of refractories.

2 REFERENCES

The following Indian Standards are necessary adjuncts to this standard:

<i>IS No.</i>	<i>Title</i>
1760	Methods of chemical analysis of limestone, dolomite and allied materials
(Part 2) : 1991	Determination of silica (first revision)
(Part 3) : 1992	Determination of iron oxide, alumina, calcium oxide and magnesia (first revision)
2109 : 1982	Methods of sampling dolomite limestone and other allied material (first revision)

3 TERMINOLOGY

3.1 For the purpose of this standard, the following definition shall apply.

3.2 Magnesite

The mineral magnesium carbonate (MgCO_3).

4 GRADES

Raw magnesite shall have five grades (see Table 1).

5 CHEMICAL COMPOSITION

The material when analysed in accordance with relevant part of IS 1760 shall have the limits for the constituents as specified in Table 1.

6 SIZE

Unless and otherwise agreed to, the size range of magnesite in Gr 1, 2 and 3 shall be 25 mm to 75 mm and for Gr 4 and 5 be 50 mm to 100 mm.

7 SAMPLING

Sampling of magnesite shall be done in accordance with IS 2109 : 1982.

Table 1 Chemical Composition of Magnesite
(Clauses 4 and 5)

Sl No.	Constituent	Requirements, Percent					Method of Test (Ref to Part of IS 1760)
		Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
i)	MgO, <i>Min</i>	45	43	42.5	45	43	Part 3
ii)	CaO, <i>Max</i>	0.75	0.75	0.75	2.00	2.00	Part 3
iii)	Al ₂ O ₃ , <i>Max</i>	0.5	0.5	0.5	0.5	0.5	Part 3
iv)	Fe ₂ O ₃ , <i>Max</i>	0.5	0.5	0.5	2.5	2.0	Part 3
v)	SiO ₂ , <i>Max</i>	2.0	3.0	4.0	1.0	2.0	Part 2